

ICIC newsletter

Illinois Cochlear Implant Club

Spring, 2006
Illinois Cochlear Implant Club
c/o Hanna Benioff, president
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From the Prez...

One of the great pleasures of my involvement with ICIC is meeting and working with special and caring people. It is heartwarming when members volunteer their time and talent to assist in running our organization.

There are many people who deserve our appreciation. Today, I want to give special thanks to two members, **Ed O'Brien & Liz Booth**. **Liz Booth** has been my right hand and good friend. She is transcribing our meetings' minutes, writes the "Listening with Liz" column, and is responsible for editing members' CI stories. **Ed O'Brien** has revised and spruced up our website - please check it out at <http://www.geocities.com/illinoiscic/>. Ed also took charge of our e-mail mailing list. Members who have e-mail should have received the last meeting notice by e-mail. If you have e-mail and did not receive a notice please contact Ed at eobrien@mutare.com.

As many of you know, we are now meeting six times a year -- three times at the College of DuPage, and three times at the Morton Grove Park District. Please make note of locations. We encourage you to attend ALL our meetings. We are fortunate to have excellent speakers who discuss new and important aspects of cochlear implants. Our meetings also offer valuable opportunities for meeting and talking to persons who have a cochlear implant and to those who contemplate one. Our first meeting at Morton Grove was great! It was good to see many new faces. There was much enthusiasm, active involvement and various offers for help. Many thanks to Carol Mitchell, Sue Chait and Cookie Brandt for making the arrangements and providing refreshments.

I look forward to seeing you at our meetings.

Happy spring!

Hanna

Illinois Cochlear Implant Club (ICIC) is a support group that offers individuals who face a common challenge the opportunity to seek emotional support. We provide an atmosphere of caring, sharing, and support in times of need, most importantly during the implant decision process.

DISCLAIMER: The Illinois Cochlear Implant Club (ICIC) neither recommends nor endorses products, people or services. Opinions expressed are those of the individuals, not those of ICIC.

ICIC Meetings 2006

Saturday, May 20th, 2 - 4 P.M.

"Techniques for Maximizing Communication: Programming Strategies, Technology, and Personal Skills."

Jennifer Micheletto & Lois Adamiec,
audiologists, Ear Institute of Chicago
> College of DuPage

Saturday, July 15th, 2 - 4 P.M.

Assistive Hearing Devices

Paul Lurie & Ed O'Brien, I.C.I.C. Members
> Morton Grove Park District

Saturday, September 16th, 2 - 4 P.M.

Cochlear Implant Companies

> College of DuPage

Saturday, November 18th, 2 - 4 P.M.

Candace Blank, audiologist

Loyola University, Chicago

> Morton Grove Park District

Meeting locations

College of DuPage

Building K, room 161

Fawell Blvd. & Lambert Road, Glen Ellyn

Morton Grove Park District

Dempster & Waukegan Road

Morton Grove

Real Time captioning provided.

I.C.I.C. Website:

<http://www.geocities.com/illinoiscic/>

Minutes of ICIC Meeting

January 21, 2006

“The Hybrid Cochlear Implant”

*Dr. Nancy Young, pediatric surgeon,
and Kerry Roesch, audiologist, both of
Children’s Memorial Hospital*

The Children’s Memorial cochlear implant program was founded in 1991 by Dr. Young. It is the largest implant program in Illinois. Kerry Roesch is the lead audiologist and there are four other audiologists, four hearing therapy specialists, two social workers, a nurse, and administrative coordinator on staff.

Dr. Young began the presentation by sharing that she and her staff are part of the FDA clinical trial of the hybrid. They are looking at children between the ages of 15 and 21 at Children’s Memorial center. The trial is now in its second phase. The cochlear implant uses a multichannel electrode array that is slid inside the inner ear to provide hearing through electrical stimulation. It makes things clearer rather than just louder as hearing aids do. CIs also provide high frequency information which is something that people do not get from their hearing aids. In the early days a candidate for CI had a loss of 90 decibels or poorer. However there are patients with high frequency hearing loss, but have a lot of residual hearing in the low frequencies and maybe some in the mid frequencies. These patients may not be candidates for a cochlear implant. They often score too well on the speech perception tests, particularly the sentences. Yet, they are very dissatisfied with their hearing aids and their overall communication abilities. Because most residual hearing is lost upon the insertion of CI electrodes, surgeons have long been hesitant to implant people with this much hearing. So there is this group of patients that could be doing better.

A shorter electrode array was designed that would be less likely to cause a loss of hearing. When this new device is placed in the inner ear, the first area is where the high frequencies are stimulated. The shorter electrode can stimulate those nerve fibers for high frequency hearing, yet the deeper residual hair cells that function for low frequency hearing are not disturbed.

The phase one FDA clinical trial has been completed with most patients at the University of Iowa. Questions that were being asked are: With this short electrode, called the hybrid, can acoustic hearing be preserved? Can a hearing aid still be used? Can patients integrate the electric hearing through their hybrid implant with the acoustic hearing that they have, amplified through a hearing aid? Will they be able to integrate the implant and their hearing aid in the implanted ear with the hearing aid in the opposite ear? If the low frequency hearing is indeed preserved in what way would that be beneficial?

A lot of different conditions had to be tested, but phase one found that in most patients, it was possible to preserve the low frequency hearing. The implanted adults were able to combine the information from the implant with their hearing aid, both on the implanted side as well as the hearing aid in the opposite ear. They were able to put this information together. Word recognition tests showed that there was benefit from using both the hearing aid and the implant in the ear that was operated on. In most cases, using the hearing aid in the opposite ear along with the hybrid and hearing aid in the implanted ear, gave the most benefit. It was also found that these patients did better in noise and melody appreciation than patients with the long-electrode implant. Now the tests are in phase two.

The hybrid electrode is on the Nucleus Freedom platform. The test subjects are 15 years and older. The testing involves looking at the baseline hearing, the baseline ability to understand speech in various conditions, and also the quality of life. The criteria have been expanded for phase two. Current candidates can have quite good hearing through 1500 hertz, but must drop down to at least 80 decibels by 2000 hertz. Speech perception scores in the potential implant ear must be less than 60% and less than 80% with a hearing aid in the opposite ear. Once again, this is only for people who have a lot of residual hearing in the lower frequencies that could be preserved.

At this point, Ms. Roesch continued the presentation.

Using a slide, the shorter electrode array was shown to go only partially into the cochlea. It is a six-banded electrode compared with the 22 active electrodes of the standard CI. The patients wear combination equipment: a speech processor and an ITE hearing aid on the surgical side and a BTE hearing aid on the opposite ear.

Hybrid stimulation is basically looking at both electrical and acoustic stimulation in the same ear with acoustic sound in the other ear. The trials are looking at the benefits of maintaining the low frequency thresholds.

A case example was presented. Katy is a little girl with progressive hearing loss who received an implant on her left ear. Her unaided hearing was tested which showed profound hearing loss in the right side and severe to profound on the left. Her speech perception was also tested. She was scoring a little over 30% in an easy word list and under 30% in a harder word list. At six weeks postoperatively she understood significantly more in both conditions, and at 3 months she showed significant growth in speech understanding with sentences in the presence of noise. In a recording the quality of her speech production was shown to have improved. Her social engagement and confidence also improved.

A very different audiogram shows either very near normal or some mild low frequency hearing loss with a precipitous high frequency loss. In the first phase of the study, selection of candidates was more conservative, accepting only individuals who had near normal hearing through 500 hertz. Now, because of the positive results they saw with the adult study, phase two is including individuals with more residual hearing further out in the frequency range. The criteria were also expanded to look at the higher percentage of word understanding at 60% or less in the surgical ear and 80% or less in the nonsurgical ear. In other centers across the country adult patients are being added to the group.

They must have normal speech and language acquisition with English as their primary language. The results of the first phase of testing indicated preservation of residual hearing in many subjects, an improvement in word understanding, improved speech recognition and processing in background noise, and improved recognition of familiar melody. It does seem that access to that low frequency hearing does help in difficult listening conditions. Postoperatively there was only an average 10-12 decibel shift in residual hearing in the low frequencies. There were even some cases without any change at all.

Ms. Roesch used charts and audiograms to demonstrate some cases and averages. There were three subjects of this study in attendance at the ICIC meeting and some of their slides were shown. One slide showed all the subjects and the difference in scores when they wore their hearing aids preoperatively and how they did with the implant, the combined condition, hearing aids and implant, hybrid implant, and as individual scores.

All but one did better in word understanding. As a group they scored significantly better than the traditional implant recipients. At 12 months they saw a bigger increase so it seems as if these hybrid subjects took a little bit longer to get good word understanding compared with traditional implant recipients. It may take a bit longer to adapt to using both acoustic and electrical stimulation in the same ear.

Word understanding in noise for a normal hearing person is about 50% of what's being said even if the noise is 25 DB louder than the sound/word being listened for. Traditional implant users can only understand about 50% at 7 DB louder. The hybrid users presented more like normal hearing patients than traditional implant patients. This demonstrates that low frequency hearing being amplified acoustically somehow helps in the listening in noise condition.

Another test asked hybrid users, traditional implant users and normal hearing individuals to recognize a familiar melody or song. understanding of music.

Basically the study did demonstrate that electric and acoustic combined stimulation does seem to be superior to acoustic or electric by itself, that patients are able to combine electric and acoustic information in the same ear and attach meaning to what they hear, that the best performance observed was when the individuals were in the combined condition hearing in all three ways, that hearing in noise and music appreciation seemed to be improved.

At this point questions were taken from the audience. A summary follows:

> in this study a regular digital hearing aid was used although there are designs with a speech processor that uses both a hearing aid and an implant in one system.

> removing a short electrode and inserting a long one has not yet become an issue because patients who have continued to lose their low frequency hearing opt for a long electrode in the opposite ear.

> the hybrid is only for sensorineural hearing loss, not conductive.

> audiologists and physicians who do not work with implant teams may not have the most current information.

> it would not make sense to put a short electrode in if there was a pattern of rapid loss of hearing.

> the hybrid surgery is relatively atraumatic with a seal of tissue immediately placed to maintain the fluid.

> regardless of how you put the long electrode array in, no one has shown that one particular method or surgeon gets better results than another based on surgical technique alone.

Two recipients of the hybrid, Lil, and Arn, continued to answer questions from the audience.

> Lil: it took about a week to hear without an echo effect.

> Arn: it took a long time to get used to the sound. However shortly after the implant he was hearing sounds that he hadn't heard before. It was the difference between having blurry vision and having sharp vision. With the implant he began to hear parts of the music that he had not heard before in the high frequencies.

> Lil: she lost her hearing due to an autoimmune disease. Her loss was in the high frequencies, low frequencies were great. It deteriorated for over 20 years. However she was still getting 90% in sentence recognition using her skills of context as a reading teacher. Thus at that point she would not have qualified for a regular implant. She did beautifully at the beginning using her hybrid. Her hearing continued to decrease through the autoimmune disease so her hybrid was adjusted so she could get some of the medium pitches. Lil now has a full insertion implant on the opposite ear. She hears quite well and has returned to the school district as a reading specialist. She feels fortunate to be on the cutting edge of several experimental things. Lil was number four in the study.

> Arn: He was number seven in the study. He has been losing his hearing since he was a teenager due to unknown causes. The deterioration has been very slow. He was able to get the hybrid sooner than he would have qualified for the regular CI. His understanding continues to improve. In the future when his hearing becomes worse, he will consider having a full implant in his left ear which he now uses for the telephone. Presently he wears a special hearing aid which sends sound to a processor and to the hearing aid. Dr. Gantz of Iowa has recommended that he wait to get the regular implant as long as possible since the technology is improving so rapidly. Presently he is relying more on his electronic hearing. He does not have directionality.

> Lil: she wears a Freedom in her other ear and has gotten some music.

> questions about insurance can be addressed by the CI companies as well as the centers.

> the study includes ages 15-99.

Quotes

"Experience is a wonderful thing. It enables us to recognize a mistake when we make it again."

Unknown

"The best way to keep good acts in memory is to refresh them with new ones."

Cato

Minutes of ICIC Meeting

March 18, 2006

Nucleus implants:

from advancements to advantages

*Presentation by Dr. Dennis Moore,
ear specialist at Lutheran General Hospital*

Dr. Moore gave a general overview of cochlear implantation. He began by describing just how the ear works: Sound enters the ear, goes through the middle ear to the cochlea where the sound energy causes a reaction in the hair cells which give impulses to the nerve.

In people with certain types of hearing loss, a cochlear implant (CI) with its electrode array in the cochlea, stimulates the nerve. In a CI the external processor is connected to the headpiece which “talks” to the internal device through the skin. The cochlea is a spiral organ, shaped something like a snail, which is protected by a very hard shell. There are fluid chambers and the nerve inside. A doctor cannot look into the inner ear of a patient. Nerve fibers branch off to different portions of the cochlea which correspond to the different frequencies of sound being received. The hair cells are very delicate receptor cells which are connected to nerve fibers. The electrodes of a CI are placed very closely to this area. Low frequency sounds are registered very deep into the cochlea; high frequency sounds are registered nearer the beginning of the organ. Dr. Moore used a slide to illustrate the cochlea’s areas of reception. The CI electrodes stimulate nerve impulses using the same pathways as normal hearing.

Dr. Moore described the Nucleus’s electrode array which has a removable stylet which is somewhat like a stiffener. This allows for easier insertion of the electrode. The array is a soft-tip, precurved in the form of the cochlea. There is close contact between the individual electrode contacts and the nerve fibers. This leads to longer battery life because less power is needed. On the screen he then showed the receiver stimulator which goes underneath the skin on the bone. There are two wires, a ground electrode and the electrode array. The wires are very thin and very delicate.

There is a magnet to help hold the piece on the outside. A titanium case is used with this CI. Using a Med-el slide Dr. Moore illustrated the very small size of a cochlea which requires much miniaturization of the technology.

Dr. Moore compared an unwound cochlea to the bobsled track at the Olympics. It is like a channel where the electrode is placed. The stylet helps the surgeon easily slide the wire into the cochlea where it then curls. The soft-tip is more gentle on the cochlea during insertion which might be important in the future if a recipient needs to have the CI replaced. The results are predictable and reliable. The electrodes hug the inner wall by the nerves.

In order to be a candidate for a cochlear implant, there must be severe hearing impairment in both ears according to the guidelines. In children the first five years of life are very important in acquiring language, so implants are done early on children who are deaf or unsuccessful with hearing aids. Dr. Moore showed the group a slide of an audiogram comparing normal hearing to that of a severe loss. Fifteen years ago a candidate had to be totally deaf; however that is not the case today.

Prior to the surgery there is a medical evaluation. The candidate must be able to tolerate the anesthesia. Dr. Moore told about two 80-year- old patients who did very well. One was diabetic and one was both blind and deaf. The medical evaluation determines if the cochlea is receptive to the electrodes. A CAT scan and MRI can show if there is scarring or otosclerosis that causes bone blockage. It would be a contraindication if the hearing loss is due to a hearing nerve problem, perhaps an acoustic neuroma, or a nerve that never developed. A middle ear infection or an eardrum perforation would rule out implantation.

Expectations are important, especially with children. It is not like flipping a switch and everything will be fine. It takes a lot of hard work.

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There are certain risks with cochlear implant surgery. There may be infection at the incision site. Meningitis has occurred although a vaccine is now administered and the implant using a "positioner" is no longer used. Facial nerve injury is not too common. Dizziness is fairly common, however it does go away. There may be some minimal pain.

Dr. Moore had some slides which contrasted CIs to cosmetic implants from extreme makeover. The characters in the slides had different goals: George wanted to hear better; Lori wanted to look better. They both want more confidence around people. One is cosmetic and one is functional.

The CI surgery is less invasive than it used to be. An incision makes a small mastoid opening behind the ear. It is the circumference of a nickel and a little bit is removed to make a depression. Points for anchoring the implant need to be made also. The incisions are much smaller now with minimal shaving of the hair. The incision is about two inches long. Anchoring grooves are used and the internal device is sutured to the bone to hold it in place. A little hole is drilled for the cochleostomy for electrode insertion. Slides illustrated this part of Dr. Moore's presentation. He added that an x-ray is usually taken at the end of the surgery to be sure of the curvature on the electrode. A light pressure dressing is then put on for about a day. Hook-up occurs usually 2-4 weeks after surgery to allow for healing.

Dr. Moore then talked about the Nucleus cochlear implant which is the one he is presently using. The failure rate is presently 4 per thousand, very good reliability. The newest processor is water resistant. It has smart sound which is like dual microphones in the processor which focus on the incoming sound. This helps in background noise. It has ADRO which means it can adjust to mute extraneous sound. Dr. Moore commented that some people with normal hearing are now using hearing aids to help them hear in noise with the new technology! Dr. Moore ended his presentation with illustrations of older processors and newer ones.

Questions followed from the audience and the information shared is summarized as follows:
---the electrodes do not reach all the way into the cochlea.
---CI users do hear low tones that are normally tested, but not the ultra low frequencies.
---removing an electrode and inserting a new one does not cause much damage.
---the brain does not normally have much difficulty adjusting to a new electrode array.
---Dr. Moore feels bilateral implants are good, especially for children. They help in localizing sound and listening in noise. Costwise we need to be careful who receives two implants.
---some people retain their residual hearing in the implanted ear.
---hair cell regeneration is promising, but a long way off.

The Latest in Cochlear Implant Technology

An article in the latest Hearing Loss Magazine, "Different Kinds of Implants: Auditory, Penetrating and Hybrid", discusses the latest in cochlear implant technology and what it means for people who might not have considered one before.

Hearing Loss Magazine is issued bimonthly to members of the Hearing Loss Association of America (HLAA). To become a member contact HLAA at 7910 Woodmont Avenue Suite 1200, Bethesda, MD 20814 (301) 657-2248/v-tty. Membership is \$25/Individual/Couple/Family.

What is L.A.C.E.?

L.A.C.E. (Listening and Communication Enhancement) is a new computerized training program which can help persons who have a hearing loss in developing listening and communication skills to help. A free demonstration of the software is available at <http://www.neurotone.com>, or contact: NeuroTone, Inc., 2317 Broadway Suite #250 Redwood City, CA 94063, (650) 839-0260.

*"Do the best you can, where you are,
with what you have, now"*

African-American Proverb

Meet Our Members

Tina Childress's Bilateral CI Story

My first major in college was Engineering...that lasted all of about 2 years. In an effort to "find myself", I chose Sign Language as an elective class. Little did I know that taking that class would get me into the Speech & Hearing Science Building and guide my future career – and life!

I finished up my Audiology program and my first job out was working in the public schools as an Educational Audiologist. I adored that job – I had contacts with teachers, parents and most importantly, the students. It was actually while I was co-testing that I discovered my hearing loss. The student I was working with was responding to tones (presented through the speakers) and I did not hear them. In fact, I thought he was giving us false positives (responding when no tones were presented). I was wrong! After he left, my co-worker tested me and my first documented hearing loss showed a mild-to-moderate sensorineural hearing loss. In retrospect, we discussed how I seemed to asking for more repetition lately and didn't consistently respond from another room.

After consulting many specialists and taking medication to try and stop and hopefully reverse the course of the hearing loss, I was given the eventual diagnosis of Autoimmune Inner Ear Disease. I describe it as "My immune system attacked my ears!" I had been sick the month before that fateful co-test situation, and battled a high fever for several days. We think perhaps this when it all started.

I experienced many of the same feelings that others with late-onset progressive hearing loss do -- anger, fear, self-doubt, pity. Luckily, I was in exactly the right field to be supported! I could not have gone through this without the help and encouragement of my family, friends, co-workers and colleagues. They helped me get through meetings by sign interpreting for me, they helped me count words during speech perception testing and they were just there for me when I needed to vent. Another great resource for me was the budding online forums and list-serves that were popping up on the Internet. In about 9 months, I went from mild-to-moderate loss to profound loss bilaterally. After about a year and a half of using hearing aids, I decided to pursue a cochlear implant. At that point, I had no open-set speech perception abilities and could barely detect conversational level speech.

When it came time to pursue which brand, I chose the Clarion device (made by Advanced Bionics (AB). Features such as the rechargeable batteries, body-worn processor with only a cable and headpiece, future capabilities of the Platinum BTE as well as the excellent Customer Service were what swayed me towards this company.

I went through many of the same challenges and triumphs that many of you have experienced. From the shock of hook-up, to being able to talk on my cell phone with strangers, this has been an amazing journey.

As a late-deafened adult, I did continue to use my hearing aid on my non-implanted ear in an effort to try and regain that sense of binaural hearing. After a couple of years though, it became more tactile than auditory and so I discontinued its use. Now, as an audiologist, it is inherently difficult for me to fathom unilateral hearing and I was definitely seeing the difficulties – listening in noise was hard, I could not localize and I always had to turn my head when someone was talking to me on my left side.

In the summer of 2005, a couple of significant things happened. First, my CI center informed that my insurance coverage was in the process of approving bilaterals - I told them to keep me informed. Second, a representative from AB heard my presentation to fellow Educational Audiologists at our national conference – I talked about my experiences and things that I have learned, in an effort to help them understand their CI students better. After the presentation, she encouraged me to send my résumé, which I did, and after a whirlwind interview process, I stepped outside my comfort zone and in October 2005, joined the company that made my implant. As a Consumer Services Specialist, it has been an amazing experience getting to meet others and share stories, match them up with other users and teach customers how to use their equipment to the best of its potential. I am a techno-geek at heart, so anytime a new gadget is out there, I'm usually one of the first to try/buy it. I found that as a CI user and a hearing professional, I can really relate to fellow CI users and candidates.

Tina Childress's story, Cont'd

Shortly thereafter, my audiologist informed me that my insurance was now approving bilateral surgeries. So, on December 8, 2005, I received my second AB cochlear implant, the HiRes 90K. Recovery was thankfully easy for me and I anxiously awaited hook-up. The second time around is definitely much easier because I knew what to expect. I continue to make progress but perhaps the hardest thing for me is finding time in my busy schedule to do aural rehabilitation. Because I do so well with my first CI, sometimes I have to force myself to take it off so that I can practice with the new one. In any event, I love hearing in stereo again! Even though the signals are still somewhat different, they are very complementary and sound fabulous together.

I have been listening to music more and try and challenge myself in noisy situations. One day I was sitting in a restaurant with my husband and my eyes got really big, he said, "What's wrong?", I said, "Nothing. Your voice is just totally popping out at me!" (grin). For Valentine's Day, my husband and daughter got me my own iPod (my 4-year old claims she owns the other one) and I enjoy plugging it in to the speakers in my office, my adapter in my car or just listening to it with my headphones and T-mic or directly plugged it with a patch cable. I grew up playing musical instruments and it is great to be able to hear many of the nuances again with my new technology and binaural hearing. I am really looking forward to the release of the new HiRes 120 strategy which is supposed to give me even more access to sounds! For both my CI experience, I started a blog at HYPERLINK "<http://tinagoesbici.blogspot.com>" <http://tinagoesbici.blogspot.com> so if you want to read more of the nitty-gritty details, this is a good place to go.

The other day, my daughter woke up first and came to my bedroom. She is a pretty good signer but that particular morning, it was obvious she wasn't in the mood. She walked over to my dresser, picked up my cochlear implants, gathered my batteries and handed everything to me - she also likes to try to put them on my head. The first thing I heard was, "Two is better than one, huh, Mom?" Ain't life grand?

This article was first published in Hear2Listen March 2005. Printed with Tina's permission

This report was submitted by Ed O'Brien, who attended the first Cochlear Corporation user group meeting in Orlando. Ed is a member of ICIC:

In February, Cochlear Corporation hosted a gathering of their customers in Disneyworld. A Disney resort was selected because so many CI users are children. Among the 600 who attended were 200 recipients, and half of those were children. The event started with an ice cream social and ended with a Cochlear sponsored family fun night complete with Disney characters, jugglers, and plenty of kid friendly food. Many attendees arrived early or stayed later to enjoy one of the theme parks.

The information provided during the presentations was very current, with enough detail so that even knowledgeable CI users learned something. All aspects of the CI were covered, from the early 1960's research to what we might see in ten years. There was also tremendous value in sharing experiences with so many recipients in such a relaxed setting. Parents shared their experiences with other parents and learned how families in other parts of America are handling the myriad issues those with deaf children face every day.

The meeting was well-organized, with an agenda that included several general assembly presentations as well as overlapping breakout sessions. The general sessions covered the history of CI by Cochlear's chief scientist, Jim Patrick, and Graeme Clark, the "father" of the cochlear implant. Tom Westman, Survivor Challenge winner (Paulau) shared his personal experience raising a hearing-impaired child, and Terry Portis, Executive Director from Hearing Loss Association of America, also weighed in.

The most popular break-out session was led by Dr. Robert Peters of the Dallas Implant Center. Dr. Peters is spearheading bi-lateral research. He discussed the specific situations where it has benefit, with an outstanding explanation on brain development and how sound is perceived. His research suggests that deaf toddlers who receive bi-lateral implants before age three will have speech discrimination equal to their peers.

An expo of CI related vendors included over 13 exhibitions covering the latest in ADL technology, rehab tools, batteries, reimbursement, using the telephone and music appreciation.

Also on display was Cochlear's Freedom implant and processor. The Freedom processor replaced the Nucleus 24 early this year. The Freedom processor will be made available as an upgrade to the 3G processor used by most

Cont'd on back page

Listening With Liz...

Do you sometimes want to shout the news off the rooftops? I can hear the birds! I can hear the microwave! I can hear the turn signal! I can hear the announcements in the grocery store! I can hear the sermon! I can hear my spouse snore! I can hear the dogs' nails on the linoleum floor! I can hear the cat purr! I can hear the children's voices! I can hear my son's/daughter's marriage ceremony! I can hear.....

After years of being unable to hear so much of life, sound is now so vivid and mindful. What so many people take for granted is earth-shaking to a CI user. Perhaps those specials announced over the PA in the store are not too important to most people, but just the fact that we CAN HEAR them makes it very important to us. That person in the restaurant using a cell phone may exhibit poor manners, however the fact we CAN HEAR the conversation makes us momentarily forget the breach of etiquette. A TV commercial we CAN HEAR from another room makes us stop in awe as we focus on a product we probably will never buy. The shrill cries and babbles of toddlers on an airplane don't bother us as we try to cat-nap because, miraculously, we CAN HEAR them. The impatient driver rudely blaring his horn is excused because we cherish the sound we CAN HEAR.

Noise is a big stressor in modern life. Isn't it funny how much of that same noise is part of the stress-reducing factor of a cochlear implant? We recognize new sounds on a daily basis, new sounds that we do not have to worry about not hearing. The doorbell? The telephone? The baby crying? The receptionist's question? The ambulance in our rear-view mirror? No problem! We CAN HEAR them all! No longer do we have to be on edge and anxious about what we might miss. There is more noise, but there is less stress because we CAN HEAR, not perfectly, not everything, but we CAN HEAR.

And, when the noise gets too much for us, we can smile and disconnect.

New Behind the Ear Processor by Advanced Bionics

John Whitlock sent an e-mail to Advanced Bionics with questions concerning new technology. John wishes to share the information with ICIC members. John is a member of ICIC (printed with permission):

"...we currently have a new behind the ear processor in clinical trials that will be launched commercially later this year. This processor will offer many new features that make connecting to different types of ALD's, phones, etc., very easy. It will have a built in t-coil, as well as some other earhook options that can be used to connect to different types of ALD's, music players, FM systems, cell phones, etc.

Along with this processor launch we will also announce a new coding strategy called HiRes 120 which is a 120 channel strategy that was designed to significantly enhance music appreciation for CI users as well as improve the clarity of speech in difficult listening situations. This strategy will be available for you to try with your CII device internally, however it will only run on the new BTE processor, and our current PSP (body worn) processor. We will be offering a trade in program at the time of the launch, so people who have older processors can have the option to upgrade. I feel that this processor may benefit you greatly for the types of situations you are inquiring about.

If you choose to upgrade this processor when it becomes available, you will receive the different adapters that you are referring to for "connecting" as part of your kit. I don't know that you can necessarily try this before you purchase it, but you may be able to. I would recommend that you ask your audiologist in Chicago if they have loaner processors. If they maybe you can work out an arrangement to try it for a period of time before making a decision. We expect to launch this product in the fall if all goes well with the clinical trials. You will see information coming from AB right before we launch it, so you will know when it is available."

Jennifer Raulie, MA, CCC-A, Advanced Bionics Corporation, Jennifer.Raulie@bionics.com

Cont'd from page 8, (Cochlear Celebration)

Cochlear brand consumers. The Freedom implant provides two additional programs and background noise improvements. Cochlear expects upgrades to begin before the year is out.

Outside the exhibition hall, Heather Whitestone McCallum was available for pictures. Widely recognized as Miss America-1995, Heather's greater accomplishment, particularly in the eyes of the many attendees of the Cochlear Celebration, is her success with her CI implant. When the meeting ended, the standing ovation from members of the audience was testimony to their heartfelt approval. There were even a few tears as people realized the time spent with new friends was over. However, there was much consolation in the repeated refrain of "See you next year."

Author's Note: Like any business meeting there was a small registration fee to attend and you must provide your own lodging and transportation. For this meeting, Cochlear secured a very good room rate. Cochlear will try to move the meeting around the country to other child friendly venues, so travel costs can be lower. The value to the author was great enough that he will be attending the next meeting no matter where it is held. *Ed O'Brien*

Online Cochlear Implant Resources

The following websites have a wealth of information about cochlear implants:

Listen-up: www.listen-up.org/implant.htm

CIHear: www.cihear.com/auditory.html

Links to auditory therapy resources

The CIHear website (see above) has a list of resources for persons who wish to practice listening with their ci. These links provide read-along stories, music, book readers (you place the text in the book reader and it reads it to you) and more.

Captioned Movies

A listing of captioned movies in your area is provided by Insight Cinema. Log on: www.insightcinema.org.

Assistive Devices at Soldier Field

Free listening devices (ALD) and closed captioning (CC) pagers are offered at the new Soldier Field at Guest Services located at Gates 1 & 19. A credit card imprint is required. TTY phones are located throughout the stadium.

ICIC newsletter

Illinois Cochlear Implant Club

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